



Appl. No. 09/802,654

IN THE US PATENT AND TRADEMARK OFFICE

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Appl. Number: 09/802,654
Filing Date: 03/08/01
Applicant: Nguyen, Trinh T.
Appl. Title: High Efficiency Switching Amplifiers

Art Unit: 2817
Examiner: Shingleton, Michael B.

Date mailed: 08/21/03
Rohnert Park, CA

AMENDMENT

COMMISSIONER OF PATENTS AND TRADEMARKS
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Alexandria VA, 22313-1450

Sir,

In response to the Office letter mailed 06/07/2002, please kindly amend the specification as follows:

In the Claims:

Please replace the entire section of claims as follows:

21. A high efficiency switching amplifier amplifying a reference input signal, for digitally processing electric power from a DC supply thereof to a loudspeaker which has a positive terminal and a negative terminal, the switching amplifier comprising:

A first switching power converter comprising bi-directional switches for supplying a positive voltage proportional to the reference input signal to the positive terminal of the loudspeaker when the amplitude of the reference input signal is positive,

A second switching power converter comprising bi-directional switches for supplying a negative voltage proportional to the reference input signal to the negative terminal of the loudspeaker when the amplitude of the reference input signal is negative, and

A PWM controller for controlling the operation of the switches of the first and second power converters in such a manner that when the first power converter is active during the positive portion of the reference input signal, the switches of the second power converter provide a return path for the first power converter's current to and from the loudspeaker; and vice versa, when the second power converter is active during the negative portion of the reference input signal, the switches of the first power converter provide a return path for the second power converter's current to and from the loudspeaker.